MISSOURI DEPARTMENT OF NATURAL RESOURCES
ENERGY CENTER - ENERGY LOAN PROGRAM
HEATING PLANT REPLACEMENT WORKSHEET

BUILDING	LOCATION	DATE

To estimate the savings possible from a heating plant replacement that is intended to increase the efficiency and/or change energy sources, the following information must be known:

The annual heating cost.
The efficiency of the existing heating plant (in percent).
The efficiency of the proposed heating plant (in percent).
The existing energy cost (cost per million Btu).
The proposed energy cost (cost per million Btu).

SAVINGS ESTIMATE

If the heating energy source is not used for any other purposes and the cost for heating the building is known, then skip lines 1 through 4 and enter that value on line 5. If the energy source supplies heating as well as other needs of the building, proceed with line 1.

1. Total the seven energy bills that heating is included in from October through April and enter that amount ..... $ _____

2. Enter the amount of the May energy bill that heating is included in ..... $ _____

3. Multiply 7.0 by line 2 $ _____

4. Subtract line 3 from line 1 AND ENTER THIS VALUE ON LINE 5 BELOW.

5. ANNUAL HEATING COSTS ..... $ _____

6. Enter the efficiency of the existing heating plant (percent divided by 100) ..... _____

7. Multiply line 5 by line 6 ..... $ _____

8. Enter the efficiency of the proposed heating plant (percent divided by 100) ..... _____

9. Divided line 7 by line 8 ..... $ _____

If the proposed heating plant will use the same energy source as the existing one, skip lines 10 through 13 and enter the value from line 9 on line 14. If the energy sources for the proposed and existing plants are different, proceed with line 10.

10. Enter the existing energy cost ($/million Btu) .... _____

11. Divided line 9 by line 10 ..... _____

12. Enter the proposed energy cost ($/million Btu) .... _____

13. Multiply line 11 by line 12 and ENTER THIS VALUE ON LINE 14 BELOW.

14. PROJECTED ANNUAL HEATING COSTS ..... $ _____

ANNUAL SAVINGS

15. Subtract line 14 from line 5 ..... $ _____ /year

PROJECT COST

16. Enter the total cost for the proposed project including material, labor and design ..... $ _____

SIMPLE PAYBACK

17. Divide line 16 by line 15 ..... _____ years